

DUPLICATE ORIGINAL

ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In Re Applications of:)	MM Docket No. 94-27
)	
CUMBERLAND COMMUNITIES)	File No. BPED-920508MD
COMMUNICATIONS CORP.)	
)	
Req: 89.3 MHz; Channel 207A)	
0.3 kW (H&V); 234 meters (H&V))	
Pioneer, Tennessee)	
)	
MOODY BIBLE INSTITUTE)	File No. BPED-92081MA
OF CHICAGO)	
)	
Req: 89.3 MHz; Channel 207A)	
0.500 kW (H&V); 425 meters (V))	
Crossville, Tennessee)	
)	
For Construction Permit for a)	
New Noncommercial, Educational)	
FM Station)	

To: Administrative Law Judge Richard L. Sippel

PETITION FOR LEAVE TO AMEND

Cumberland Communities Communications Corporation ("Cumberland"), by counsel, and pursuant to §§ 73.3522(b) and 73.3535 of the Commission's Rules and Regulations, hereby respectfully submits its Petition for Leave to Amend its above-captioned application so as to remove the mutual exclusivity between its application and the application of competing

1046

applicant Moody Bible Institute of Chicago ("Moody"). In support whereof, the following is respectfully shown:

1. Pursuant to a settlement agreement between Cumberland and Moody, which settlement agreement has been filed with the Commission as part of a joint settlement request, Cumberland has prepared an engineering amendment to its application designed to remove the above-designed mutual exclusivity between its application and the application of Moody. That amendment has now been prepared and is submitted herewith for the presiding officer's consideration.¹

2. Cumberland respectfully submits that good cause exists for the grant of the instant petition and the acceptance of the Amendment filed herewith. The Amendment has been prepared and filed diligently, would not involve the modification or addition of issues or parties to the proceeding, would not disrupt the orderly conduct of the instant proceeding, unfairly prejudice other parties to the proceeding, or involve a competitive advantage. While the Amendment was voluntarily prepared and filed, it serves to resolve the instant proceeding favorably for the parties, the Commission, and the listening public. Grant of the petition as part of the joint settlement request of the parties would expedite additional non-commercial educational FM service to the communities of Pioneer and Crossville, Tennessee.

NOW, THEREFORE, PREMISES CONSIDERED, Cumberland Communities Communications Corporation respectfully requests the issuance of an order by the presiding

¹ Consistent with the request of Bureau counsel, the undersigned counsel for Cumberland delivered an advanced copy of the engineering materials submitted herewith to Bureau counsel on July 12, 1994.

officer granting the instant petition and accepting the amendment filed herewith for association with its application.

Dated this 27 day of July, 1994.

Respectfully Submitted,

CUMBERLAND COMMUNITIES
COMMUNICATIONS CORPORATION

MCCAMPBELL & YOUNG, P.C.
Its Attorneys

By: 
Robert S. Stone

MCCAMPBELL & YOUNG
A Professional Corporation
2021 Plaza Tower
P. O. Box 550
Knoxville, Tennessee 37901-0550
(615) 637-1440

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AMENDMENT

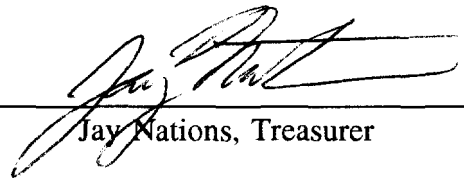
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

The application of Cumberland Communities Communications Corporation for authority to construct and operate a new non-commercial educational FM broadcast station on FM Channel 207A (File No. BPED-920508MD) is hereby amended to include the attached revised engineering section and related exhibits.

DATED this 22 day of July, 1994.

CUMBERLAND COMMUNITIES
COMMUNICATIONS CORPORATION

By: _____


Jay Nations, Treasurer

Section V-B - FM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____
--	--

Name of Applicant

Cumberland Communities Communication, Corp.

Call letters (if issued)

Is this application being filed in response to a window? ☐ Yes ☒ No

New FM

If Yes, specify closing date: _____

Purpose of Application: (check appropriate boxes)

- | | |
|---|---|
| <input checked="" type="checkbox"/> Construct a new (main) facility (AMENDMENT) | <input type="checkbox"/> Construct a new auxiliary facility |
| <input type="checkbox"/> Modify existing construction permit for main facility | <input type="checkbox"/> Modify existing construction permit for auxiliary facility |
| <input type="checkbox"/> Modify licensed main facility | <input type="checkbox"/> Modify licensed auxiliary facility |

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- | | |
|---|--|
| <input type="checkbox"/> Antenna supporting-structure height | <input type="checkbox"/> Effective radiated power |
| <input type="checkbox"/> Antenna height above average terrain | <input type="checkbox"/> Frequency |
| <input type="checkbox"/> Antenna location | <input type="checkbox"/> Class |
| <input type="checkbox"/> Main Studio location | <input type="checkbox"/> Other (Summarize briefly) |

File Number(s) BPED-920508MD

1. Allocation:

Channel No.	Principal community to be served:			Class (check only one box below)
207	City	County	State	<input checked="" type="checkbox"/> A <input type="checkbox"/> B1 <input type="checkbox"/> B <input type="checkbox"/> C3 <input type="checkbox"/> C2 <input type="checkbox"/> C1 <input type="checkbox"/> C <input type="checkbox"/> D
	Pioneer	Campbell	TN	

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

Atop Sexton Mountain, approx. 7 km N of Pioneer, TN

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	36 °	28 '	54 "	Longitude	84 °	19 '	33 "
----------	------	------	------	-----------	------	------	------

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☐ Yes ☒ No

If Yes, give call letter(s) or file number(s) or both. _____

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any. _____

4. Does the application propose to correct previous site coordinates?

☐ Yes ☒ No

If Yes, list old coordinates.

Latitude	°	'	"	Longitude	°	'	"
----------	---	---	---	-----------	---	---	---

5. Has the FAA been notified of the proposed construction?

☒ Yes ☐ No

If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.

Date 3-03-92 Office where filed Southern Region (see 92-ASO-0433-OE)Exhibit No.
ON FILE

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

Landing Area	Distance (km)	Bearing (degrees True)
(a) <u>none found</u>		
(b) _____		

7. (a) Elevation: *(to the nearest meter)*ON FILE(1) of site above mean sea level; 731.5 meters(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 18.3 meters(3) of the top of supporting structure above mean sea level [(aX1) + (aX2)] 749.8 meters(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical(1) above ground 18.3 meters (H)18.3 meters (V)(2) above mean sea level [(aX1) + (bX1)] 749.8 meters (H)749.8 meters (V)(3) above average terrain 234.4 meters (H)234.4 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(bX3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator.

Exhibit No.
ON FILE

9. Effective Radiated Power:

(a) ERP in the horizontal plane 0.3 kw (H*) 0.3 kw (V*)

(b) Is beam tilt proposed?

☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.

Exhibit No.

_____ kw (H*) _____ kw (V*)

*Polarization

SECTION V-B - FM BROADCAST ENGINEERING DATA (Page 3)

10. Is a directional antenna proposed?

☒ Yes ☐ No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative field.

Exhibit No.
X

11. Will the main studio be located within the 70 dBu or 3.16 mV/m contour?

☒ Yes ☐ No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125.

Exhibit No.

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *except citizens band or amateur* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference?

☐ Yes ☒ No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)*

Exhibit No.

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No.
ON FILE

14. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.
IV

(a) the proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) the 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mV/m contour; and

(c) the legal boundaries of the principal community to be served.

15. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 1299 sq. km.

Population 21462 (1990 census)

16. Attach as an Exhibit a map *(Sectional Aeronautical charts where obtainable)* showing the present and proposed 1 mV/m (60 dbu) contours.

Exhibit No.

Enter the following from Exhibit above:

Gain Area _____ sq. mi.

Loss Area _____ sq. mi.

Percent change (gain area plus loss area as percentage of present area) _____ %.

If 50% or more this constitutes a major change. Indicate in question 2(c), Section I, accordingly.

17. For an application involving an auxiliary facility only, attach as an Exhibit a map (*Sectional Aeronautical Chart or equivalent*) that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.: _____)

18. Terrain and coverage data (*to be calculated in accordance with 47 C.F.R. Section 73.313*).

Source of terrain data: (*check only one box below*)

☒ Linearly interpolated 30-second database

☐ 7.5 minute topographic map

(Source: NGDC (ON FILE))

☐ Other (*briefly summarize*)

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)
0	SEE EXHIBIT V	
45		
90		
135		
180	SEE EXHIBIT V	
225		
270		
315		

Allocation Studies

(See Subpart C of 47 C.F.R. Part 73)

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico?

☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No.

20. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada?

☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM Agreement of 1947.

Exhibit No.

21. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following:

Exhibit No.

VI

Pioneer, TN vs. Crossville, TN
(BPED-920508MD) (BPED-920810MA)

- (a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
- (b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
- (c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
- (d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
- (e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
- (f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
- (g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
- (h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ *(separation requirements involving intermediate frequency (i.f.) interference)*.

Exhibit No.

ON FILE

23.(a) Is the proposed operation on Channel 218, 219, or 220?

☐ Yes ☒ No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207?

☐ Yes ☐ No

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223.

Exhibit No.

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose.

Exhibit No.

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

SECTION V-B - FM BROADCAST ENGINEERING DATA (Page 6)

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No.

- (1) Protected and interfering contours, in all directions (360), for the proposed operation.
- (2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
- (3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
- (4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
- (5) The official title(s) of the map(s) used in the exhibit(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

☒ Yes ☐ No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No.
ON FILE

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)?

☐ Yes ☒ No

If Yes, attach as an Exhibit information required in 1/. (except for Class D (secondary) proposals.)

Exhibit No.

26. Environmental Statement (See 47 C.F.R. Section 1.1301 et seq.)

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

☐ Yes ☒ No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.


Exhibit No.

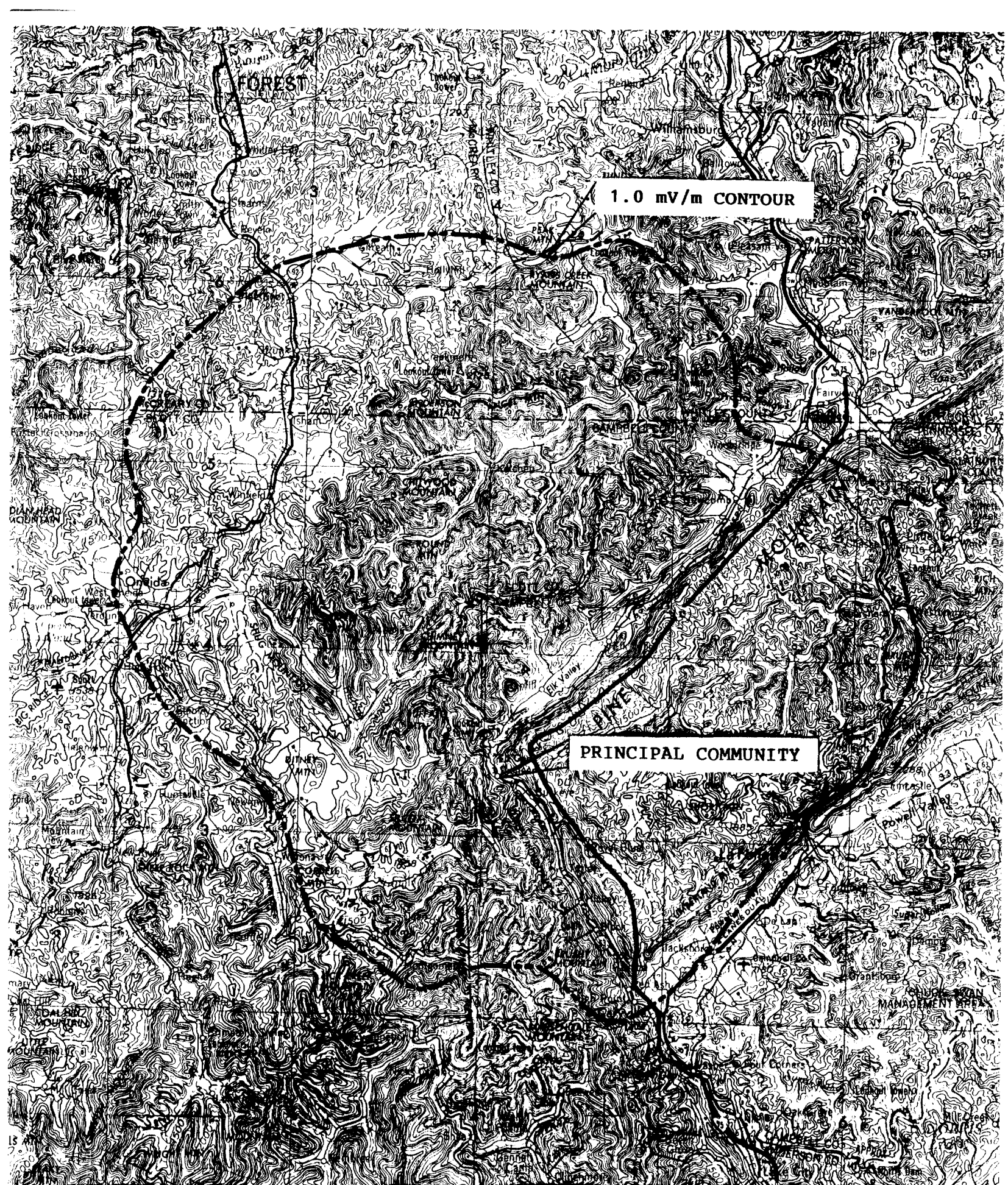
If No, explain briefly why not.

ON FILE

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name (Typed or Printed)	Relationship to Applicant (e.g., Consulting Engineer)
Dwight R. Magnuson	Consulting Engineer
Signature	Address (Include ZIP Code)
	P.O. Box 2761 Knoxville, TN 37901
Date	Telephone No. (Include Area Code)
July 8, 1994	(615) 525-6358



Scale 1:250,000

EXHIBIT IV

20 Statute Miles

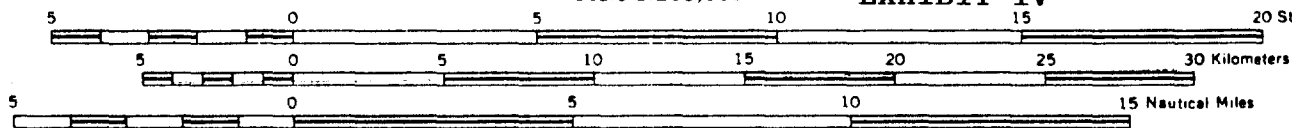


EXHIBIT V

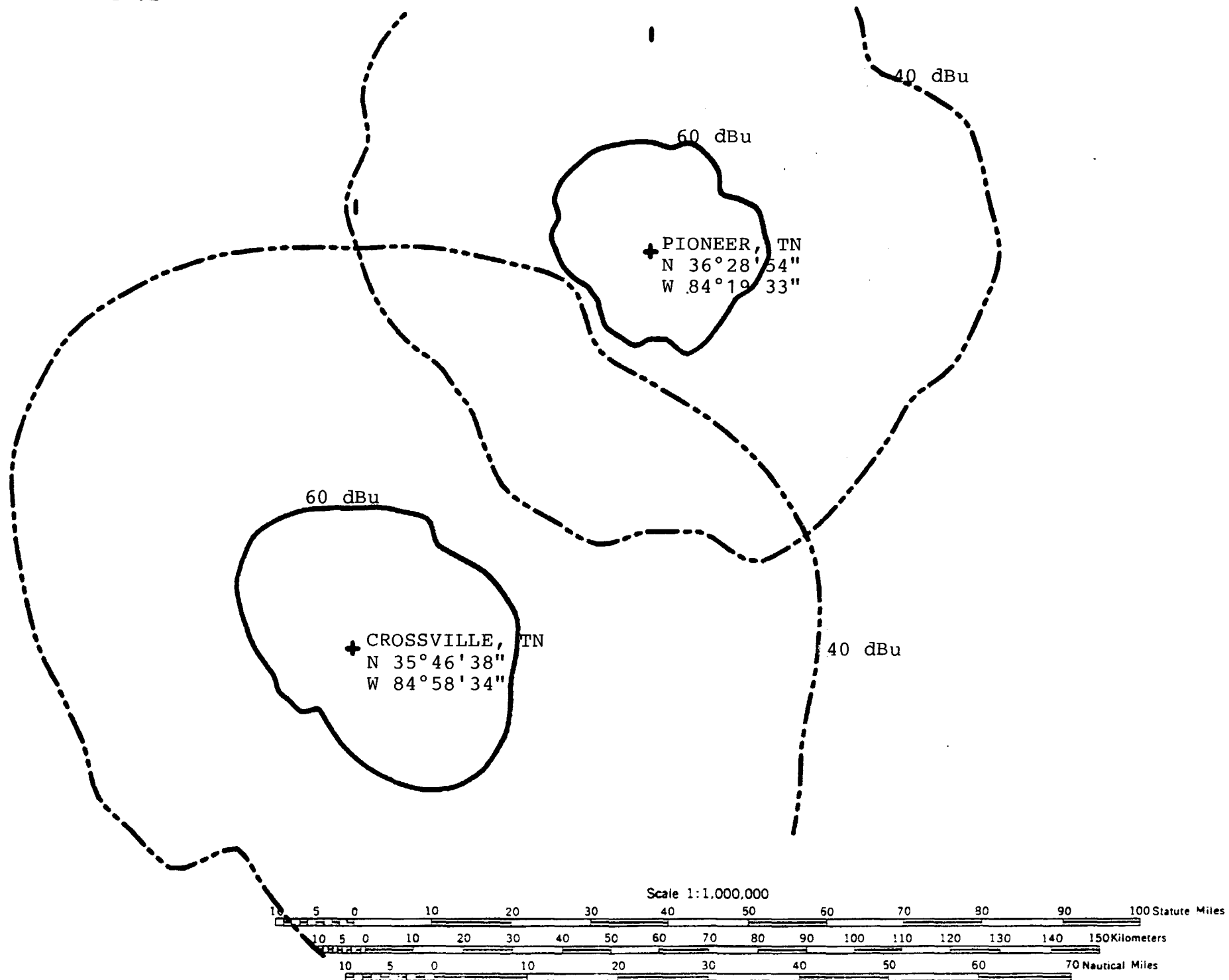
DISTANCES TO CONTOURS (Kilometers)

Frequency: 89.3000 MHz

F(50,50) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu): 60.0
.0	259	-5.23	22.0
10.0	239	-5.23	21.2
20.0	288	-5.23	23.2
30.0	266	-5.23	22.3
40.0	231	-5.23	20.9
50.0	175	-5.23	18.2
60.0	230	-5.23	20.8
70.0	284	-5.23	23.1
80.0	282	-5.23	23.0
90.0	298	-5.23	23.6
100.0	270	-5.23	22.5
110.0	244	-5.23	21.4
120.0	197	-5.23	19.3
130.0	204	-5.23	19.6
140.0	217	-5.23	20.2
150.0	238	-5.23	21.2
160.0	249	-5.23	21.7
170.0	165	-5.23	17.6
180.0	159	-5.23	17.3
190.0	189	-5.23	18.9
200.0	210	-7.00	17.9
210.0	255	-9.00	17.5
220.0	256	-11.00	15.6
230.0	269	-13.00	14.3
240.0	304	-14.00	14.3
250.0	297	-12.00	15.9
260.0	286	-10.00	17.6
270.0	259	-8.00	18.8
280.0	237	-6.00	20.2
290.0	203	-5.23	19.6
300.0	261	-5.23	22.2
310.0	280	-5.23	22.9
320.0	281	-5.23	22.9
330.0	287	-5.23	23.2
340.0	275	-5.23	22.7
350.0	266	-5.23	22.4
45.0	181	-5.23	18.5
135.0	217	-5.23	20.3
225.0	228	-12.00	13.7
315.0	275	-5.23	22.8

EXHIBIT VI



CUMBERLAND COMMUNITIES COMMUNICATION CORPORATION
PIONEER, TENNESSEE
60 dBu CONTOUR

DISTANCES TO CONTOURS (Kilometers)

Frequency: 89.3000 MHz

F(50,50) Curves Number of Contours: 1

AZ (deg)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu): 60.0
.0	259	-5.23	22.0
10.0	239	-5.23	21.2
20.0	288	-5.23	23.2
30.0	266	-5.23	22.3
40.0	231	-5.23	20.9
50.0	175	-5.23	18.2
60.0	230	-5.23	20.8
70.0	284	-5.23	23.1
80.0	282	-5.23	23.0
90.0	298	-5.23	23.6
100.0	270	-5.23	22.5
110.0	244	-5.23	21.4
120.0	197	-5.23	19.3
130.0	204	-5.23	19.6
140.0	217	-5.23	20.2
150.0	238	-5.23	21.2
160.0	249	-5.23	21.7
170.0	165	-5.23	17.6
180.0	159	-5.23	17.3
190.0	189	-5.23	18.9
200.0	210	-7.00	17.9
210.0	255	-9.00	17.5
220.0	256	-11.00	15.6
230.0	269	-13.00	14.3
240.0	304	-14.00	14.3
250.0	297	-12.00	15.9
260.0	286	-10.00	17.6
270.0	259	-8.00	18.8
280.0	237	-6.00	20.2
290.0	203	-5.23	19.6
300.0	261	-5.23	22.2
310.0	280	-5.23	22.9
320.0	281	-5.23	22.9
330.0	287	-5.23	23.2
340.0	275	-5.23	22.7
350.0	266	-5.23	22.4

CUMBERLAND COMMUNITIES COMMUNICATIONS CORPORATION
PIONEER, TENNESSEE
40 dBu CONTOUR

DISTANCES TO CONTOURS (Kilometers)

Frequency: 89.3000 MHz

F(50,10) Curves Number of Contours: 1

AZ (deg)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu): 40.0
.0	259	-5.23	66.3
10.0	239	-5.23	64.3
20.0	288	-5.23	69.0
30.0	266	-5.23	67.0
40.0	231	-5.23	63.5
50.0	175	-5.23	57.5
60.0	230	-5.23	63.5
70.0	284	-5.23	68.7
80.0	282	-5.23	68.5
90.0	298	-5.23	69.8
100.0	270	-5.23	67.3
110.0	244	-5.23	64.9
120.0	197	-5.23	59.9
130.0	204	-5.23	60.7
140.0	217	-5.23	62.1
150.0	238	-5.23	64.3
160.0	249	-5.23	65.4
170.0	165	-5.23	56.3
180.0	159	-5.23	55.5
190.0	189	-5.23	59.0
200.0	210	-7.00	56.6
210.0	255	-9.00	55.5
220.0	256	-11.00	50.9
230.0	269	-13.00	47.2
240.0	304	-14.00	47.4
250.0	297	-12.00	51.7
260.0	286	-10.00	55.7
270.0	259	-8.00	58.6
280.0	237	-6.00	62.0
290.0	203	-5.23	60.5
300.0	261	-5.23	66.5
310.0	280	-5.23	68.3
320.0	281	-5.23	68.3
330.0	287	-5.23	68.9
340.0	275	-5.23	67.9
350.0	266	-5.23	67.0

MOODY BIBLE INSTITUTE OF CHICAGO
CROSSVILLE, TENNESSEE
60 dBu CONTOUR

DISTANCES TO CONTOURS (Kilometers)

Frequency: 89.3000 MHz

F(50,50) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu): 60.0
.0	328	-3.00	28.0
10.0	342	-3.00	28.6
20.0	354	-3.00	29.1
30.0	379	-3.00	30.0
40.0	303	-3.00	26.9
50.0	336	-3.00	28.3
60.0	396	-3.00	30.7
70.0	448	-3.00	32.4
80.0	482	-3.00	33.7
90.0	469	-3.00	33.2
100.0	454	-3.00	32.6
110.0	490	-3.00	34.0
120.0	524	-3.00	35.4
130.0	536	-3.00	35.8
140.0	511	-3.00	34.9
150.0	495	-4.00	32.4
160.0	421	-5.00	28.4
170.0	392	-7.00	24.6
180.0	359	-9.00	21.0
190.0	336	-11.00	18.0
200.0	314	-13.00	15.4
210.0	316	-15.00	13.8
220.0	565	-17.00	16.3
230.0	635	-18.00	16.3
240.0	607	-17.00	17.1
250.0	469	-15.00	16.8
260.0	416	-13.00	17.9
270.0	396	-11.00	19.7
280.0	379	-9.00	21.6
290.0	378	-7.00	24.2
300.0	380	-5.00	27.1
310.0	385	-4.00	28.7
320.0	381	-3.00	30.1
330.0	372	-3.00	29.8
340.0	359	-3.00	29.3
350.0	339	-3.00	28.4

MOODY BIBLE INSTITUTE OF CHICAGO
CROSSVILLE, TENNESSEE
40 dBu CONTOUR

DISTANCES TO CONTOURS (Kilometers)

Frequency: 89.3000 MHz

F(50,10) Curves Number of Contours: 1

AZ (deg)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu): 40.0
.0	328	-3.00	79.5
10.0	342	-3.00	81.0
20.0	354	-3.00	82.2
30.0	379	-3.00	84.4
40.0	303	-3.00	76.8
50.0	336	-3.00	80.4
60.0	396	-3.00	86.1
70.0	448	-3.00	91.1
80.0	482	-3.00	94.1
90.0	469	-3.00	93.0
100.0	454	-3.00	91.6
110.0	490	-3.00	94.7
120.0	524	-3.00	97.6
130.0	536	-3.00	98.5
140.0	511	-3.00	96.5
150.0	495	-4.00	91.9
160.0	421	-5.00	82.4
170.0	392	-7.00	73.4
180.0	359	-9.00	65.3
190.0	336	-11.00	57.4
200.0	314	-13.00	50.6
210.0	316	-15.00	45.7
220.0	565	-17.00	56.9
230.0	635	-18.00	57.1
240.0	607	-17.00	58.8
250.0	469	-15.00	57.1
260.0	416	-13.00	58.6
270.0	396	-11.00	62.7
280.0	379	-9.00	66.8
290.0	378	-7.00	72.2
300.0	380	-5.00	78.4
310.0	385	-4.00	82.0
320.0	381	-3.00	84.6
330.0	372	-3.00	83.9
340.0	359	-3.00	82.7
350.0	339	-3.00	80.7

EXHIBIT X

Directional Antenna pursuant to Section 73.316

Cumberland Communities Communications Corporation proposes to use a one-bay directional FM antenna manufactured by Jampro Antennas, Inc. of Sacramento, California. This antenna meets all the requirements of Section 73.316 and will be installed by qualified personnel under the supervision of Jampro to assure proper azimuthal alignment. The attached horizontal polar plot of field strength and tabulation will provide a "null" at 240 degrees.



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

DATE

CIRCULARLY POLARIZED DIRECTIONAL FM ANTENNA FOR:

STATION:

LOCATION: Pioneer, TN

ANTENNA MODEL: JMPC-1DA

PATTERN ENVELOPE

JAMPRO proposes to custom build and directionalize a standard FM side mount antenna to meet this stations needs. The final patterns of the HPOL and VPOL will remain within the given pattern envelope.

DESCRIPTION OF TEST

JAMPRO will build or utilize an exact duplicate of the support structure for testing, paying close attention to details, such as including other structures present, such as climbing steps, feed lines etc.

JAMPRO will perform all testing in full scale on our full scale test range. **JAMPRO** will add parasitic's to the environment to manipulate the pattern to meet all requirements. All brackets and parasitic's will be hot dipped galvanized steel to ensure good contact and long life.

JAMPRO will provide a final certification and complete installation drawings of the system when all work is completed. Customer is instructed to follow all mounting instructions and have a licensed surveyor verify the heading of the antenna boom.

All testing will be under the direct supervision of Eric Dye, **JAMPRO's** full time staff engineer. He holds a Masters of Science Degree in Electrical Engineering, and has been developing and designing directional FM arrays for over 5 years.

RULE COMPLIANCE

JAMPRO will comply with all known FCC rules including those stated directly on the stations construction permit. The rules include the following:

The licensed ERP will not be exceeded at any heading

The rms of the Vpol will not exceed the rms of the Hpol.

The maximum to minimum signal will not exceed 15 dB

JAMPRO will attempt to fill the 85% rms requirement



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MOUNTING CONSIDERATIONS

JAMPRO instructs that no other antennas are mounted within the apperture of the directional array. A minimum vertical spacing of 10' should be kept for antennas mounted on the same mounting structure. The tower and all cables, steps, etc should be properly RF grounded.

Since directional antenna systems include parasitic reflectors and special bracketing, standard weights and windloads should not be used. Contact **JAMPRO** for estimated weights and windloads on this antenna.

CONCLUSION

JAMPRO ANTENNAS, INC. carefully follows sound engineering principles in all aspects of developing an FM directional antenna. Over 35 years of experience goes into the design of each system. The customer or his engineer are welcome to be on site during the testing, contact factory for scheduling.



TABLE OF FIELD STRENGTH FOR : Z1

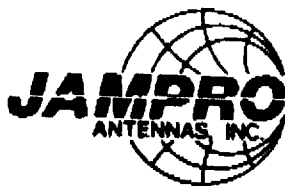
		INCREMENTAL DEGREES									
		0	1	2	3	4	5	6	7	8	9
+		1.00	1.00	1.00	.99	.99	.99	.99	.98	.98	.98
-		1.00	1.00	1.00	.99	.99	.99	.99	.98	.98	.98
D	-10	.98	.97	.96	.96	.95	.94	.94	.93	.93	.92
E	-20	.91	.90	.90	.89	.88	.88	.87	.86	.86	.85
G	-30	.84	.83	.81	.80	.79	.77	.76	.75	.73	.72
R	-40	.71	.70	.69	.67	.66	.65	.64	.63	.62	.61
E	-50	.60	.58	.57	.55	.54	.52	.51	.49	.48	.46
E	-60	.45	.43	.42	.41	.40	.38	.37	.36	.34	.33
S	-70	.32	.30	.29	.27	.26	.25	.23	.22	.21	.19
	-80	.18	.17	.16	.15	.15	.14	.13	.12	.12	.11
	-90	.10									

Customer: _____ date: _____

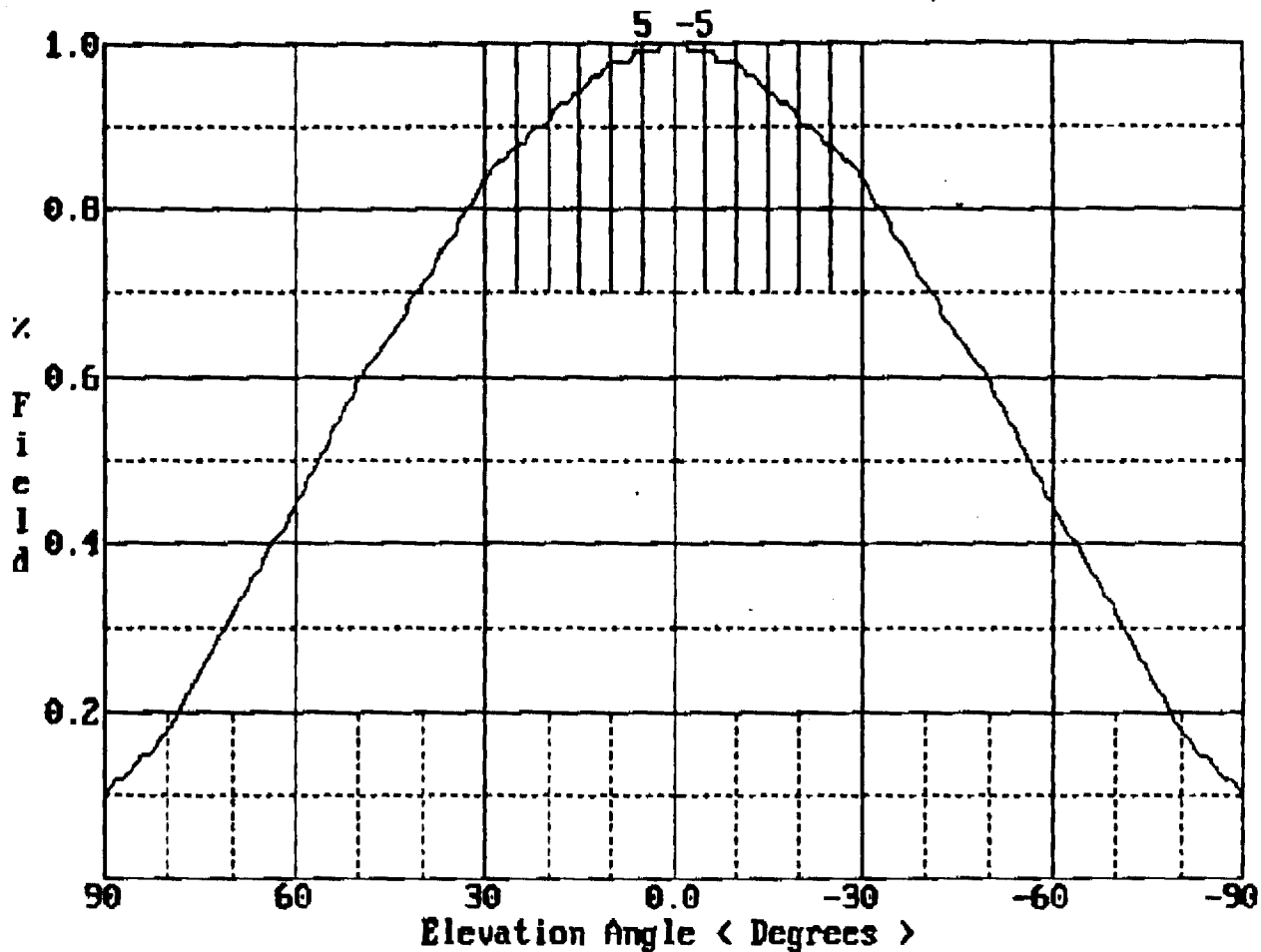
Frequency: _____ Type: _____ Bays: 1 Spacing: 1.0 wave

Beam tilt: 0 Null fill: 0 %

Notes: Elevation pattern plotted in relative field



ELEVATION PATTERN



J*P*O A*N*T*E*N*N*A*S

Customer: _____ date: _____
Frequency: _____ Type: _____ Bays: 1 Spacing: 1.0 wave
Beam tilt: 0 Null fill: 0 %
Notes: Elevation pattern plotted in relative field



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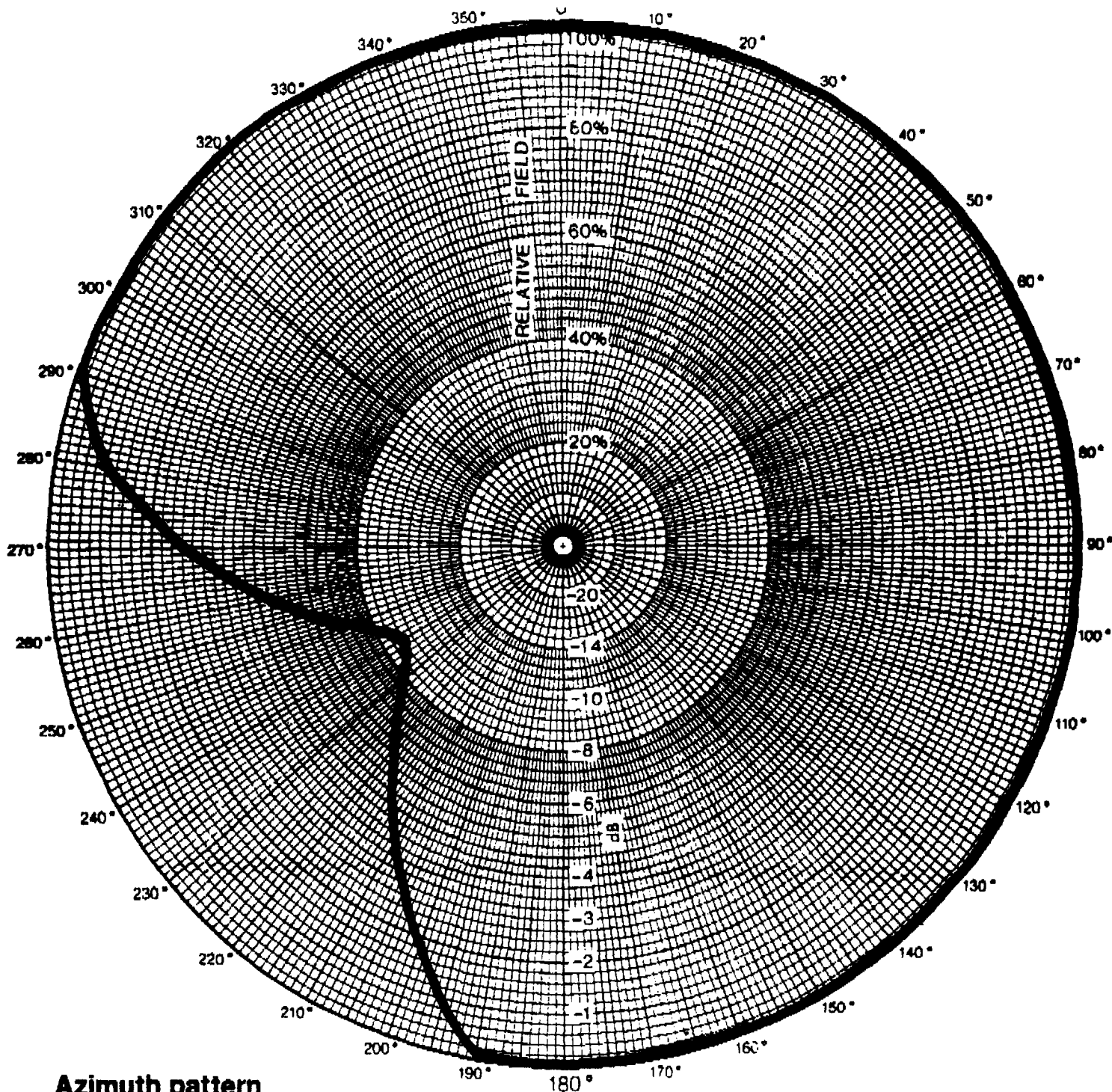
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PATTERN ENVELOPE

ERP = 0.30 KW

0 DEGREES = TRUE NORTH

AZIMUTH	FIELD	dB	ERP (KW)	(dBK)
0	1.000	0.00	0.30	-5.23
10	1.000	0.00	0.30	-5.23
20	1.000	0.00	0.30	-5.23
30	1.000	0.00	0.30	-5.23
40	1.000	0.00	0.30	-5.23
50	1.000	0.00	0.30	-5.23
60	1.000	0.00	0.30	-5.23
70	1.000	0.00	0.30	-5.23
80	1.000	0.00	0.30	-5.23
90	1.000	0.00	0.30	-5.23
100	1.000	0.00	0.30	-5.23
110	1.000	0.00	0.30	-5.23
120	1.000	0.00	0.30	-5.23
130	1.000	0.00	0.30	-5.23
140	1.000	0.00	0.30	-5.23
150	1.000	0.00	0.30	-5.23
160	1.000	0.00	0.30	-5.23
170	1.000	0.00	0.30	-5.23
180	1.000	0.00	0.30	-5.23
190	1.000	0.00	0.30	-5.23
200	0.816	-1.77	0.20	-7.00
210	0.648	-3.77	0.13	-9.00
220	0.515	-5.77	0.08	-11.00
230	0.409	-7.77	0.05	-13.00
240	0.364	-8.77	0.04	-14.00
250	0.459	-6.77	0.06	-12.00
260	0.577	-4.77	0.10	-10.00
270	0.727	-2.77	0.16	-8.00
280	0.915	-0.77	0.25	-6.00
290	1.000	0.00	0.30	-5.23
300	1.000	0.00	0.30	-5.23
310	1.000	0.00	0.30	-5.23
320	1.000	0.00	0.30	-5.23
330	1.000	0.00	0.30	-5.23
340	1.000	0.00	0.30	-5.23
350	1.000	0.00	0.30	-5.23
45	1.000	0.00	0.30	-5.23
135	1.000	0.00	0.30	-5.23
225	0.459	-6.77	0.06	-12.00
315	1.000	0.00	0.30	-5.23



Customer: _____ Date: _____

Frequency: _____ Type Number: _____

Elevation Gain: _____ Azimuth Directivity: _____ Major Lobe Gain: _____

Notes: _____



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CERTIFICATE OF SERVICE

I, Robert S. Stone, do hereby certify that a true and exact copy of the foregoing Petition for Leave to Amend has been served this 29 day of July, 1994 upon all counsel or parties as listed below at interest in this cause by delivering a true and exact copy to the offices of said counsel or parties or by placing a copy in the United States mail addressed to said counsel or parties at his/her office, with sufficient postage to carry it to its destination, or by special overnight courier.

The Honorable Richard L. Sippel
Administrative Law Judge
Federal Communications Commission
2000 L Street, N.W.
Room 214
Washington, D.C. 20554

Ms. Paulette Laden
Hearing Division
Mass Media Bureau
Federal Communications Commission
2025 M Street, NW
Room 7212
Washington, D.C. 20554

Michael R. Miller, Esq.
Southmayd & Miller
1220 Nineteenth Street, NW
Suite 400
Washington, DC 20036



Robert S. Stone